Date                                                      Signature of Attorney


## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the
application:

## Listing of Claims:

1. (currently amended)  An envelope generator, comprising:

an input terminal for having a signal inputted therein;

a first integrator for generating intermediate state of envelopes with a first attack time
and a first release time in response to changes in level of said signal inputted through said
input terminal to impart said intermediate state of envelopes to said signal;

a second integrator for respectively modifying said intermediate state of envelopes into
final state of envelopes with a second attack time and a second release time in response to
changes in level of said signal ~~imparted said intermediate state of envelopes~~ outputted from
said first integrator to impart said final state of envelopes to said signal; and

an output terminal for outputting said signal with said final state of envelopes
therethrough, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired
release time.


2. (currently amended)  An audio compression apparatus, comprising:

an input terminal for having an audio signal inputted therein;

a sampling element for periodically sampling said audio signal to obtain an absolute

value in level of said audio signal;

a subtracter for acquiring a difference between said absolute value and a predetermined threshold value;

a gain generator for generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

an envelope generator including a first integrator for generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal, and a second integrator for respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal ~~imparted said intermediate state of envelopes~~ outputted from said first integrator to impart said final state of envelopes to said gain signal;

a multiplier for multiplying said audio signal by said gain signal with said final state of envelopes; and

an output terminal for outputting said audio signal multiplied by said gain signal therethrough, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired release time.


3. (currently amended)  An audio expansion apparatus, comprising:

an input terminal for having an audio signal inputted therein;

a sampling element for periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a subtracter for acquiring a difference between said absolute value and a predetermined threshold value;

a gain generator for generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

an envelope generator including a first integrator for generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal, and a second integrator for respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal ~~imparted said intermediate state of envelopes~~ outputted from said first integrator to impart said final state of envelopes to said gain signal;

a multiplier for multiplying said audio signal by said gain signal with said final state of envelopes; and

an output terminal for outputting said audio signal multiplied by said gain signal therethrough, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired release time.

4. (currently amended) An envelope generation method, comprising:

a first step of having a signal inputted;

a second step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said signal inputted in said first step to impart said intermediate state of envelopes to said signal;

a third step of respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said signal ~~imparted said intermediate state of envelopes~~ outputted in said second step to impart said final state of envelopes to said signal; and

a fourth step of outputting said signal with said final state of envelopes, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired

release time.


5. (currently amended) An audio compression method, comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal ~~imparted said intermediate state of envelopes~~ outputted in said fifth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired release time.


6. (currently amended) An audio expansion method, comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

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a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal ~~imparted said intermediate state of envelopes~~ outputted in said sixth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired release time.

7. (currently amended) ~~A envelope generation program capable of being executed by computers~~ A recordable medium having stored thereon information on an envelope generation program having a computer perform an envelope generation, said envelope generation program comprising:

a first step of having a signal inputted;

a second step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said signal inputted in said first step to impart said intermediate state of envelopes to said signal;

a third step of respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to

changes in level of said signal ~~imparted said intermediate state of envelopes~~ outputted in said second step to impart said final state of envelopes to said signal; and

a fourth step of outputting said signal with said final state of envelopes, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired release time.


8. (currently amended)  ~~A audio compression program capable of being executed by computers~~ A recordable medium having stored thereon information on an audio compression program having a computer perform a compression of an audio signal, said audio compression program comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal ~~imparted said intermediate state of envelopes~~ outputted in said fifth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal, wherein

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said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired

release time.


9. (currently amended) A audio expansion program capable of being executed by computers A recordable medium having stored thereon information on an audio expansion program having a computer perform an expansion of an audio signal, said audio expansion program comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal imparted said intermediate state of envelopes outputted in said fifth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal, wherein

said first attack time is equal to zero,

said second attack time is equal to a desired attack time, and

the sum of said first release time and said second release time is equal to a desired

release time.